

The NICHD Connection

November 2020

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Former Fellow Follow-Up: Dr. Lauren Waters, PI at a PUI

Lauren “Laurie” Waters, PhD, is an associate professor in the Department of Biochemistry at the University of Wisconsin, Oshkosh (UW Oshkosh). She completed her postdoctoral training from 2007 to 2012 in the lab of Dr. Gisela “Gigi” Storz. While at the NICHD, Dr. Waters studied the molecular mechanisms of small regulatory RNAs and small proteins (<50 amino acids) in bacteria, specifically *Escherichia coli*. This work led to her current research on manganese homeostasis in bacteria, which affects microbial survival in eukaryotic hosts, at UW Oshkosh.



Lauren Waters, PhD

Dr. Water’s school is a primarily undergraduate institute (PUI). PUIs are accredited colleges and universities that mostly offer associate degrees, bachelor’s degrees, and/or master’s degrees and award a limited number of PhDs.

Check out our **Q&A** with Dr. Waters to learn more about being a principal investigator (PI) at a PUI:

Q: *Did you always know you wanted to teach at a PUI?*

A: No, I did not know I wanted to teach at a PUI. I loved academic research and knew I wanted to continue in the lab in some fashion, but I was mainly familiar with R1 (research-intensive) labs. As I mentored students, especially during my postdoc years in Gigi’s lab, I realized I enjoyed working one-on-one with students. Combined with my interest in basic molecular microbiology (which is cheap, fast, and has a wealth of well-developed biochemical and genetic techniques), I realized that I could accomplish this well at a PUI.

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Letter from the Editor

I'm writing this letter in October. There are a lot of unknowns coming up. Between now and the release of this issue, there will be a presidential election, COVID-19 vaccine trial progression (or pause), and any number of life events for our NICHD fellows. It feels insincere to write something that will "work" with whatever happens a month from now. So, here's to hoping for good health and progress moving forward!

On to the content of the issue. I'm very excited to share our [Former Fellow Follow-up](#) with Dr. Lauren "Laurie" Waters. She is an associate professor at the University of Wisconsin, Oshkosh, a primarily undergraduate institute (PUI). I appreciate how detailed she is in her responses—down to the specific grants she uses to fund her research at a PUI.

With social distancing, it's been challenging to meet new people. Let's remedy that. Please meet Dr. Mohammad Al-Jundi, a clinical fellow in the Inter-Institute Endocrinology Training program since 2019. Learn about Dr. Al-Jundi's research on thyroid cancer in this month's ["Clinical Corner" column](#).

Before signing off for the month, I want to say a special thank you to [Dr. Yvette Pittman](#) for her work in the NICHD Office of Education since 2013. Thank you, Yvette, for all you have done for the NICHD and our future biomedical workforce. No matter what happens between now and the release of this November issue, I know with the talented individuals and teams at the NIH, we have a lot of hope for the future.

Your Editor in Chief,
Shana R. Spindler, PhD

Please send questions and comments to our editor at shana.spindler@nih.gov.

A Fond Farewell to Dr. Yvette Pittman

We offer Dr. Yvette Pittman, Director of the NICHD Office of Education, a fond farewell as she continues her work in the intramural program at the National Institute of Neurological Disorders and Stroke. Her accomplishments will leave an indelible mark on our training program.

During her time at the NICHD, Dr. Pittman spearheaded:

- » The online Annual Progress Review (APR) system for fellows, launched in 2016, to track scientific and career progress
- » The Intramural Research Fellowships (IRFs), our competitive internal funding opportunity for NICHD postdoctoral and clinical fellows
- » DIR's revised mentoring policy for tenure-track investigators
- » An NICHD fellow alumni database
- » A valuable list of organizations that accept grant applications from NIH intramural fellows
- » The Three-Minute Talk (TmT) Awards Program for science communication
- » The Fellows Recruitment Incentive Award (FRIA) program, which supports investigators exhibiting superior mentoring ability who recruit postdocs from populations traditionally underrepresented in science

As we wish Dr. Pittman the best of luck in her new endeavors, we welcome Dr. Erin Walsh as Acting Director to the NICHD Office of Education. Check back next month for a few words from Dr. Walsh!

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To my NICHD family,

I cannot leave without sending you all a fond farewell. These seven years of working in the Office of Education have been a great learning experience, and I'm so grateful for the opportunity to serve such a wonderful group of scientists!

I would like to express my gratitude for all of the support and guidance I've received throughout my tenure, from postdoctoral fellow to training director. I have had the opportunity to get to know so many of you. The time I have spent at NICHD will be cherished forever—working with you has been an absolute pleasure!

It has been an unforgettable ride, and I've met so many great colleagues and friends along the way!

As I start my new opportunity at NINDS, I hope that our paths will cross again in the future.

Sending a virtual hug to you all,

Yvette



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Former Fellow Follow-Up: Dr. Lauren Waters

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Q: *What was the application/hiring process like?*

A: I applied to both R1/R2 (essentially institutions with graduate students) and PUI positions. I had separate applications for different types of schools because the type and amount of research that can be done is different. I wrote my general application in late July/early August. I started applying in August and continued submitting applications until February. Most applications were due in early fall, and I had several phone interviews in the fall. I had an on-campus interview at my current institution (University of Wisconsin, Oshkosh) in November, and they made me an offer in December. I negotiated in January and accepted in February.

Overall, the process took several months. But the specific process of hiring with UW Oshkosh was quick.

Q: *What is the career path of a PI after joining a PUI?*

A: Typically, a PI at a PUI is tenure-track, but it is important to clarify expectations carefully during the interview process. Clarify not only if the position is tenure-track, but also about expectations for teaching versus research loads, which classes you would teach, lab space and equipment availability, and tenure requirements (how teaching excellence and research progress are measured).

Q: *What's your typical day like?*

A: Most semesters, I teach four days a week and have one non-teaching day. On my teaching days, I am in class from one to five hours, depending. At UW Oshkosh, we are under contract to teach 12 credit hours per semester, but you can have three credit hours reassigned to research. I have mostly taught nine credit hours per semester, which means nine hours in class. I also spend two to three hours outside of class for each credit hour making teaching materials (lectures, quizzes, exams), grading, prepping for labs, and meeting with students.

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Former Fellow Follow-Up: Dr. Lauren Waters

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On a typical day, I spend at least a little bit of time on research—starting some cultures or carrying out a several-hour experiment. I usually have two to three undergrads working with me in a given semester, and they come into the lab about five hours per week. Some of my research time is spent with them in the lab, and some time is spent designing their research projects. I often tag team with them—doing some of the steps of a protocol while they are at class or work.

Q: *Overall, what is your relative time spent teaching, mentoring, writing grants, managing the lab, service projects, etc.?*

A: Officially, my position is 45% teaching, 45% research, and 10% service. However, during the semesters, I spend about 70% of my time teaching, 20% in research, 5% on service, and 5% mentoring students (career discussions, letters of recommendation, etc.). During our three-week “interim” period in January and during the three months of the summer, I spend about 80% of my time on research and about 10% of my time each on teaching and service.

Q: *How does the environment of a PUI influence your research and chosen area of study?*

A: The most important thing to consider about carrying out research at a PUI is feasibility. Your time and your student researchers’ time is quite constrained. In addition, your budget and available equipment is limited. You need to carefully design experiments that are feasible with the resources you have and that will generate useful data. This does not mean compromising the science, but it might mean figuring out how to spread an experiment over several days, or how to collect data with different equipment. I have never forgotten how an NIH program officer once explained PUI research to me: “You can still do impactful and high-quality research at a PUI. It is just at a slower pace.”

While undergraduates can become very independent and knowledgeable about their piece of the project, it is hard for them to see the whole picture and know the field. This means that you, as the PI, do almost all the thinking and planning. In contrast to graduate students or postdocs (who can readily keep up with new developments in the literature, design experiments, and apply new techniques to a question), undergrads need more guidance and direction. They don’t necessarily require more supervision (hands-on time), but undergrads might need more guidance on experimental design. As the PI, you will need to provide both the questions and methods to address the questions.

Lastly, it is hard to carry out research in a very competitive field at a PUI, due to the rate at which results can be generated. Finding a less-populated niche of your field is essential.

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Former Fellow Follow-Up: Dr. Lauren Waters

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Q: *What are the funding sources for your research?*

A: I have received funding from Research Corporation for Science Advancement (RCSA) for two grants, and I am very excited to be starting my first [NIH R15 AREA](#) grant. My first year as faculty, I went to an excellent workshop called Beginning a Research Program at a Predominantly Undergraduate Institution, put on by the Council for Undergraduate Research (CUR). I recommend this workshop (or similar workshops for R1/R2/R3 institutions) to everyone! As an NIH postdoc, I had become familiar with the NIH granting system, but the workshop helped me navigate the broader world of the National Science Foundation (NSF) and other federal agencies, as well as non-profit foundations. The CUR workshop introduced me to RCSA, and it also provided valuable guidance about research with undergraduates.

Q: *What trials and tribulations did you encounter while setting up your lab?*

A: I didn't really encounter any major trials or tribulations setting up my lab, just the mundane ones of lack of time, students mixing up samples or using up expensive reagents quickly, and the stress of figuring out what to order and how to manage money!

Perhaps the most challenging was feeling isolated from my research community and being in a different scientific environment where no one else carries out similar research. At a PUI, departments hire to fill specific niches rather than to build a powerhouse of research labs in related areas. However, attending conferences, forming collaborations, and keeping up with former lab mates helped a lot.

Q: *Where do you seek out mentorship?*

A: I sought out mentorship in different ways for specific needs. For teaching, I turned to my department for advice about our student body and general pedagogical techniques. For biochemistry-specific teaching, I have found many helpful mentors and fellow practitioners through the societies, particularly the American Society for Biochemistry and Molecular Biology (ASBMB). My Cottrell Scholar grant from RCSA also has been amazing for connecting me to other scientists passionate about teaching.

For research, my number one mentor has been my postdoc advisor, Dr. Gigi Storz. She is an exceptional mentor and has been incredibly supportive since I left the NIH. Another great resource is former postdoc and graduate school lab mates.

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Former Fellow Follow-Up: Dr. Lauren Waters

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Q: *Were there any workshops or programs at the NIH that helped you prepare for your current position?*

A: Yes, many! I attended several programs through the OITE that helped me discern career paths I did and did not want to pursue. In particular, the “Grant Writing 101” and “Developing Teaching Statements, Syllabi, and Curricula” workshops were very helpful. I also had the opportunity to teach part of a course at the NIH through the Foundation for Advanced Education in the Sciences (FAES). Of course, mentoring postbac students in the Storz lab was very valuable and enjoyable. Lastly, I had a postdoctoral fellowship through the Postdoctoral Research Associate (PRAT) program at NIGMS that was fantastic in providing scientific and career mentoring.

Q: *Do you have any final tips for fellows who are thinking about running their own labs?*

A: One great tip I got was to go into the lab each day. Especially when you are just starting to teach, you could easily spend all your time making lectures and grading. But make yourself at least walk into the lab every day and do a short routine task, like streaking out single colonies or making a buffer—just to connect with your research space and keep that part of your mind active.

It is a busy, often hectic, challenging career, but incredibly rewarding and exciting. Nothing compares to the feeling of getting great data, or the fulfillment of seeing your students go on to become incredible researchers, skilled clinicians, or use their science background in new, creative ways.

To learn more about Dr. Waters' career and research, please visit her [website](#) or check out her latest publication, “[Structure-function analysis of manganese exporter proteins across bacteria.](#)”

Clinical Corner: Meet Dr. Mohammad Al-Jundi

Mohammad Al-Jundi, MD, joined the NIH in 2019 as a clinical fellow in the [NIH Inter-Institute Endocrinology Training Program](#). After attending medical school in his home country at Jordan University of Science and Technology, Dr. Al-Jundi completed his internal medicine residency at Georgetown University-Washington Hospital Center program. His research focuses on thyroid cancer, type 2 diabetes, and insulin resistance.

We asked Dr. Al-Jundi a few questions about his research and interests to get to know the person behind the degree. Introducing Dr. Al-Jundi:

What influenced you to go into endocrinology?

I made that decision during medical school because I was fascinated with the physiology of endocrine system and the interaction between hormones and their effects on the human body.

What led you to the NIH—why did you choose to do your fellowship here?

During my internal medicine residency, I had many interactions with NIH trained physicians who were very capable and experienced. My conversations with them and the opportunities offered by NIH played an important role in making my decision to join the NIH.

What are your specific research interests?

I am interested in thyroid gland related disease, specifically thyroid cancer. I am fortunate to have great mentors, Dr. Joanna Klubo-Gwiedzinska at the NIH and Dr. Kenneth Burman from Medstar Washington Hospital Center.

Are you working on any clinical trials right now?

In one of my ongoing projects, we study the relationship between pregnancy and thyroid cancer to understand the effect of pregnancy on thyroid cancer patients' survival. In another project, we study the effects of lutetium Lu 177 dotatate treatment on different endocrine organs' function. We are also collaborating with Medstar Washington Hospital Center on a project, studying the molecular signature of aggressive papillary thyroid cancer.

*Clinical
Corner*



Mohammad Al-Jundi, MD

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Clinical Corner: Meet Dr. Mohammad Al-Jundi

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What is your most memorable experience so far while at the NIH?

I have had many great experiences at the NIH, but the most memorable is an interaction with the family of a young patient who had a complex medical history and presented to NIH with newly diagnosed thyroid cancer. She had surgery to remove her thyroid gland at NIH, which cured her cancer.

The management of her different medical problems was challenging, but the interdisciplinary collaboration of the different medical teams led to a great outcome. The patient and her family left the Clinical Center very grateful for the care provided by us.

Do you have any hobbies outside of your research and medical work?

I love nature and enjoy outdoor activities with my friends and family. I also play soccer and tennis regularly.



The Rep Report

By Anshika Jain, PhD

As the current NICHD Basic Sciences Institutes and Centers (IC) Representative, I represent NICHD postdoctoral fellows at the Fellows Committee (FelCom) meeting every month and share the latest news with you here. Do you have a concern or question that you want brought up at the next meeting? Contact me at anshika.jain@nih.gov!



Have you thought about serving as an NICHD rep to Felcom? As my time as the basic science representative comes to an end, we are currently seeking a new representative. Please feel free to contact Dr. Erin Walsh (erin.walsh@nih.gov) if you are interested in this leadership position!

FelCom welcomes the newly elected members

- » Parinaz Fathi, NIBIB Representative
- » Theresa Lee, NHLBI Representative
- » Kat Daly, Graduate Student Council Liaison

Please contact Sara Young-Baird (sara.young@nih.gov) if you are interested in applying for the co-chair position on the FelCom mentoring sub-committee.

Good news for NIH fellows! Effective November 1, dental and vision will now be included in FAES medical benefits. The 2020/2021 benefits guide can be found at faes.org.

Dental coverage highlights include:

- » 100% in-network coverage for preventive/diagnostic services
- » 80% in-network coverage for basic care
- » 50% in-network coverage for major restorative services

Vision coverage highlights include:

- » Copay (in-network): \$10 for in-network exam, \$20 for eyewear
- » \$130 in-network frame allowance (once per year); \$70 allowance at Costco/Walmart/Sam's Club
- » \$20 in-network copay for eyeglass lenses
- » \$130 in-network allowance for elective contacts (100% covered if therapeutic)

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The Rep Report

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ANNOUNCEMENTS FROM NATIONAL POSTDOC ASSOCIATION

The National Postdoc Association (NPA) is currently seeking dedicated individuals to serve as associate editors of [The POSTDOCKET](#), a monthly online newsletter covering news items and features of interest to the postdoctoral community and its stakeholders. The associate editors will work on a quarterly basis to prepare and review up to four articles for web publication. The associate editor will contact assigned authors and will edit content in the month that they work. Remember, all postdocs at NIH have free membership of NPA.

The Recreation and Welfare/Health and Wellness Committee

encourages postdocs to join the [Bethesda Postdoc Slack Page](#) to engage in the wellness and virtual workout programs offered by the committee. Use the invite link to join with your non-NIH e-mail address. Here are some channels that may be of interest:

- » **Wellness-destress:** share strategies and experiences dealing with stress.
- » **Wellness-getting-active:** talk about at-home fitness routines and schedule some virtual workout classes. Virtual workout classes on this channel include yoga, core, and strength classes.
- » **Beth-pd-running-club:** receive information about the Bethesda Postdocs Running Club.
- » **Community-science-and-networking:** check in and network with your fellow postdocs! Need volunteers for an event? Looking for information? Etc.
- » Housing, general, and other channels too!

If you have any questions, please contact the FelCom R&W Liaison: tiffany.zarrella@nih.gov.

Stay tuned for more information from the FelCom committee in next month's newsletter.

Stay well, stay safe, everyone!

November Announcements

APPLICATIONS OPEN FOR 2021 NCI TECHNOLOGY TRANSFER AMBASSADORS PROGRAM (TTAP)

This hybrid training/mentoring immersion program offers postdoctoral fellows the opportunity to augment their current research activities with five to eight hours per week of hands-on training in biomedical invention development, commercialization, and entrepreneurship.

The TTAP was developed at the National Cancer Institute (NCI) Technology Transfer Center, which services the technology transfer needs for NCI as well as **9 other institutes, including NICHD.**

More information about the program, as well as a pre-recorded information session, can be found at <https://techtransfer.cancer.gov/aboutttc/ambassadors>. Questions can be directed to TT_Ambassadors@mail.nih.gov.

If you are interested in joining the TTAP, download the application from the website and return with the requested materials to TT_Ambassadors@mail.nih.gov by **Tuesday, December 1, 2020.**

GAIN PROGRAMMING SKILLS WHILE TELEWORKING FROM HOME

During this time of extended telework, the NICHD's Bioinformatics and Scientific Programming Core (BSPC) is offering to help fellows gain valuable programming and data analysis skills. BSPC can provide several resources for learning the R programming language as well as develop custom learning plans using online resources to meet specific learning goals. If you are interested in programming and data analysis, please contact Dr. Ryan Dale at ryan.dale@nih.gov.

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November Announcements

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UPCOMING PUBLIC SPEAKING WORKSHOP: GIVING SCIENTIFIC TALKS Wednesday, December 2, 1–2 p.m. (Virtual)

As a launching pad for our Annual Postbac Seminar Series (more information to be announced soon!), on Wednesday, December 2, Public Speaking Coach Scott Morgan will be offering his acclaimed workshop “Speaking About Science.” This is a great opportunity for newer postbacs to learn strategies and tips for giving effective science presentations, whether at lab meetings or for larger audiences of broad scientific backgrounds.

“Speaking about Science” is a highly interactive workshop that introduces a nine-step preparation process to prepare a clear and engaging talk for a variety of scientific audiences. Topics include: the presentation of data, identifying the theme and focus, how to create effective visual aids, and how to begin and end a talk.

Please email Monica Cooper (cooperm@mail.nih.gov) if you plan to attend.

HAVE YOU TOLD US ABOUT YOUR ACCOMPLISHMENTS THIS YEAR?

We’d love to recognize your great news from 2020—from winning a poster award to landing a new job! Please send a letter to our editor, at shana.spindler@nih.gov, with your accomplishment(s) from 2020, and we will include them in our December issue.

ETHICS IN RESEARCH TRAINING FOR POSTBACS AND GRADUATE STUDENTS Thursday, December 10, 9:30 a.m.–4:00 p.m.

From the OITE website:

Training in Responsible Conduct of Research is an essential component of your development as a scientist. This course will use lectures, group discussions, and case studies to explore the principles of research ethics. The full-day course is split into a morning and afternoon session (attendance at both is required for course credit.) Each class accommodates 70 people. Certificates will be awarded to those that complete the course. Topics to be covered include:

- » Overview of research ethics (current topics and historical studies)
- » Formal research misconduct (falsification, fabrication, and plagiarism)
- » Ethical research involving animal models and human subjects
- » Data management
- » Mentor/mentee relations
- » Conflict of Interest
- » Conflict resolution and reporting
- » Strategies for excelling as a trainee in an ethical manner

This course **must be completed** by all postbacs and graduate students, in the first training year. Follow this link to register: [**Ethics in Research for Postbacs & Graduate Students.**](#)

November Events

WEDNESDAY, NOVEMBER 4, 1–2 PM

Virtual Graduate/Medical School Interviewing Webinar for NICHD Postbacs: Interviewing for Professional School

Led by Public Speaking Coach Scott Morgan, this workshop will address:

- » Tips to help you prepare for your interviews and present yourself professionally
- » Types/examples of questions you can expect
- » Strategies for delivering your best answers
- » Types of questions to ask your interviewers
- » Adapting your interviewing skills to virtual platforms during the COVID-19 pandemic

Please email Ms. Monica Cooper (cooperm@mail.nih.gov) to register for this workshop.

THURSDAY, NOVEMBER 12, 9 AM–3:30 PM

Responsible Conduct of Research Training for New NICHD Postdocs

*This is a full-day, online workshop that is part of the **mandatory** RCR requirements for all new NICHD postdocs, which is led by the Office of Intramural Training and Education (OITE).*

For additional dates and registration, visit the [RCR for Postdocs OITE webpage](#). Participation is tracked by the NICHD Office of Education.

FRIDAY, NOVEMBER 13, 12 NOON–5 PM

Annual NICHD DIR & DIPHR Joint Scientific Retreat

The Annual NICHD DIR & DIPHR Joint Scientific Retreat will be held virtually this year. Keep an eye out for emails with a link to attend.

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November Events

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THURSDAY AND FRIDAY, NOVEMBER 19–20

NICHD Virtual Grant Writing Workshop

Led by **Dr. Cedric Williams** (Professor, University of Virginia), this two-day virtual workshop will lay the foundation on how to develop research ideas, identify the right experiments to answer specific questions, and determine how to strengthen existing proposals to address significant biomedical problems. Fellows will also participate in small-group discussions focused on reading, evaluating, and providing feedback on their materials.

DAY 1: Thursday, November 19, 2–5 p.m.

Developing Ideas for Meaningful Grant Proposals

In this seminar, Dr. Williams will focus on developing comprehensive research proposals, with an emphasis on content, format, and range of information needed for well-written proposals that successfully address intellectual merit and overall impact. There will also be ample time for questions and dynamic group discussions.

DAY 2: Friday, November 20, 10 a.m. – 3 p.m.

Hands-On Workshop: Integrating Proposal Development with Review and Evaluation

This workshop will build on ideas from Day 1, with specific focus on idea generation, grant writing clarity and integrating feedback/evaluation in order to improve your proposals. Participants will break into small groups to evaluate and discuss ideas, building clarity on the following:

- » General statement of research plan
- » Variables to be manipulated
- » Outcome variables
- » Methods necessary to accomplish research objectives
- » Significance of research project

Please contact Ms. Monica Cooper (cooperm@mail.nih.gov) to register for this workshop.

ONGOING EVENTS AROUND CAMPUS

NIH-Wide Office of Intramural Training and Education (OITE) Events

For more information and registration, please visit [Upcoming OITE Events](#).

NIH Library Training and Events

For more information and registration, please visit the [NIH Library Calendar](#).